

Colbert 8.2

ABC LABORATORIES, INC.  
EAST 4922 UNION AVENUE  
SPOKANE, WA 99219  
509-534-0161

RECEIVED  
NOV 29 1989  
SUPERFUND BRANCH

REPORT TO: Spokane County Dept. of Utilities  
N. 811 Jefferson  
Spokane, WA 99210

LAB NO: 33033-89  
DATE: 11-16-89  
SAMPLE DATE: 10-27-89

ATTN: Bruce Austin

P.O.#:

DESCRIPTION: Perform Volatile Organic Scan on submitted samples from the wells in the Colbert Landfill area. Analyses performed by methods outlined in proposal of December 8th, 1988.

DETECTION LIMITS: 1 part per billion

ND: Not Detected

This document contains six pages.

Respectfully Submitted,  
ABC LABORATORIES, INC.



W.E. Burkhardt  
Manager

USEPA SF



1414373

# ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33033-89

| NAME                        | Travel<br>Blank     | Travel<br>Blank     | Travel<br>Blank     | Travel<br>Blank | Travel<br>Blank | Laboratory<br>Blank |
|-----------------------------|---------------------|---------------------|---------------------|-----------------|-----------------|---------------------|
| WELL NO.                    | 0273D-5<br>10-27-89 | 1173D-1<br>10-27-89 | 1473C-2<br>10-27-89 | 11-7-89         | 11-8-89         | 11-9-89             |
| Chloroform                  | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,1-Dichloroethane          | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,1-Dichloroethylene        | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Trichloroethylene           | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,1,1-Trichloroethane       | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Tetrachloroethylene         | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Methylene Chloride          | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1-Pentene                   | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Cyclopentane                | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Trans 2-Hexene              | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Benzene                     | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Toluene                     | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Ethylene Dibromide          | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Ethyl Benzene               | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| M-xylene                    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| O-xylene                    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| P-xylene                    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Cumene                      | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,2,4-Trimethyl Benzene     | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| P-cymene                    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Chlorobenzene               | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| M-dichlorobenzene           | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| O-dichlorobenzene           | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| P-dichlorobenzene           | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Methyl Ethyl Ketone         | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Acetone                     | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Bromodichloromethane        | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Bromoform                   | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Carbon Tetrachloride        | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Dibromochloromethane        | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,2-Dichloroethane          | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Trans 1,2-Dichloroethane    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Trans 1,2-Dichloroethylene  | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,2-Dichloropropane         | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Cis 1,3-Dichloropropylene   | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| Trans 1,3-Dichloropropylene | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,1,2,2-Tetrachloroethane   | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 1,1,2-Trichloroethane       | ND                  | ND                  | ND                  | ND              | ND              | ND                  |
| 2-Chloroethylvinyl Ether    | ND                  | ND                  | ND                  | ND              | ND              | ND                  |

# ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33033-89

NAME

Laboratory  
Blank

(b) (6)

WELL NO.

1173D-1

1173D-1  
Confirming

1573R-1

1473M-1

1473M-1  
Confirming

|                             |    |    |    |    |    |    |
|-----------------------------|----|----|----|----|----|----|
| Chloroform                  | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane          | ND | 23 | 21 | ND | ND | ND |
| 1,1-Dichloroethylene        | ND | 7  | 10 | ND | ND | ND |
| Trichloroethylene           | ND | 4  | 7  | ND | ND | ND |
| 1,1,1-Trichloroethane       | ND | 37 | 45 | ND | 22 | 26 |
| Tetrachloroethylene         | ND | ND | ND | ND | ND | ND |
| Methylene Chloride          | ND | ND | ND | ND | ND | ND |
| 1-Pentene                   | ND | ND | ND | ND | ND | ND |
| Cyclopentane                | ND | ND | ND | ND | ND | ND |
| Trans 2-Hexene              | ND | ND | ND | ND | ND | ND |
| Benzene                     | ND | ND | ND | ND | ND | ND |
| Toluene                     | ND | ND | ND | ND | ND | ND |
| Ethylene Dibromide          | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene               | ND | ND | ND | ND | ND | ND |
| M-xylene                    | ND | ND | ND | ND | ND | ND |
| O-xylene                    | ND | ND | ND | ND | ND | ND |
| P-xylene                    | ND | ND | ND | ND | ND | ND |
| Cumene                      | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethyl Benzene     | ND | ND | ND | ND | ND | ND |
| P-cymene                    | ND | ND | ND | ND | ND | ND |
| Chlorobenzene               | ND | ND | ND | ND | ND | ND |
| M-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| O-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| P-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| Methyl Ethyl Ketone         | ND | ND | ND | ND | ND | ND |
| Acetone                     | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane        | ND | ND | ND | ND | ND | ND |
| Bromoform                   | ND | ND | ND | ND | ND | ND |
| Carbon Tetrachloride        | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane        | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane          | ND | ND | ND | ND | ND | ND |
| Trans 1,2-Dichloroethane    | ND | ND | ND | ND | ND | ND |
| Trans 1,2-Dichloroethylene  | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane         | ND | ND | ND | ND | ND | ND |
| Cis 1,3-Dichloropropylene   | ND | ND | ND | ND | ND | ND |
| Trans 1,3-Dichloropropylene | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane   | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Trichloroethane     | ND | ND | ND | ND | ND | ND |
| 2-Chloroethylvinyl Ether    | ND | ND | ND | ND | ND | ND |

# ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33033-89

NAME

(b) (6)

WELL NO.

1573K-2

0273E-1

0273E-1  
Confirming

1073L-1

1573H-3

1573C-13

|                             |    |    |    |    |    |    |
|-----------------------------|----|----|----|----|----|----|
| Chloroform                  | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane          | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene        | ND | ND | ND | ND | ND | ND |
| Trichloroethylene           | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane       | ND | 59 | 73 | ND | ND | ND |
| Tetrachloroethylene         | ND | ND | ND | ND | ND | ND |
| Methylene Chloride          | ND | ND | ND | ND | ND | ND |
| 1-Pentene                   | ND | ND | ND | ND | ND | ND |
| Cyclopentane                | ND | ND | ND | ND | ND | ND |
| Trans 2-Hexene              | ND | ND | ND | ND | ND | ND |
| Benzene                     | ND | ND | ND | ND | ND | ND |
| Toluene                     | ND | ND | ND | ND | ND | ND |
| Ethylene Dibromide          | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene               | ND | ND | ND | ND | ND | ND |
| M-xylene                    | ND | ND | ND | ND | ND | ND |
| O-xylene                    | ND | ND | ND | ND | ND | ND |
| P-xylene                    | ND | ND | ND | ND | ND | ND |
| Cumene                      | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethyl Benzene     | ND | ND | ND | ND | ND | ND |
| P-cymene                    | ND | ND | ND | ND | ND | ND |
| Chlorobenzene               | ND | ND | ND | ND | ND | ND |
| M-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| O-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| P-dichlorobenzene           | ND | ND | ND | ND | ND | ND |
| Methyl Ethyl Ketone         | ND | ND | ND | ND | ND | ND |
| Acetone                     | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane        | ND | ND | ND | ND | ND | ND |
| Bromoform                   | ND | ND | ND | ND | ND | ND |
| Carbon Tetrachloride        | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane        | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane          | ND | ND | ND | ND | ND | ND |
| Trans 1,2-Dichloroethane    | ND | ND | ND | ND | ND | ND |
| Trans 1,2-Dichloroethylene  | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane         | ND | ND | ND | ND | ND | ND |
| Cis 1,3-Dichloropropylene   | ND | ND | ND | ND | ND | ND |
| Trans 1,3-Dichloropropylene | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane   | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-trichloroethane     | ND | ND | ND | ND | ND | ND |
| 2-Chloroethylvinyl Ether    | ND | ND | ND | ND | ND | ND |

# ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33033-89

NAME

(b) (6)

| WELL NO.                    | 1473N-1 | 0273F-4 | 1573C-6 | 1473C-2 | 0273D-5 | 0273D-5 |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| Chloroform                  | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1-Dichloroethane          | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1-Dichloroethylene        | ND      | ND      | ND      | ND      | ND      | ND      |
| Trichloroethylene           | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,1-Trichloroethane       | ND      | ND      | ND      | ND      | ND      | ND      |
| Tetrachloroethylene         | ND      | ND      | ND      | ND      | ND      | ND      |
| Methylene Chloride          | ND      | ND      | ND      | ND      | 138     | 140     |
| 1-Pentene                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Cyclopentane                | ND      | ND      | ND      | ND      | ND      | ND      |
| Trans 2-Hexene              | ND      | ND      | ND      | ND      | ND      | ND      |
| Benzene                     | ND      | ND      | ND      | ND      | ND      | ND      |
| Toluene                     | ND      | ND      | ND      | ND      | ND      | ND      |
| Ethylene Dibromide          | ND      | ND      | ND      | ND      | ND      | ND      |
| Ethyl Benzene               | ND      | ND      | ND      | ND      | ND      | ND      |
| M-xylene                    | ND      | ND      | ND      | ND      | ND      | ND      |
| O-xylene                    | ND      | ND      | ND      | ND      | ND      | ND      |
| P-xylene                    | ND      | ND      | ND      | ND      | ND      | ND      |
| Cumene                      | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2,4-Trimethyl Benzene     | ND      | ND      | ND      | ND      | ND      | ND      |
| P-cymene                    | ND      | ND      | ND      | ND      | ND      | ND      |
| Chlorobenzene               | ND      | ND      | ND      | ND      | ND      | ND      |
| M-dichlorobenzene           | ND      | ND      | ND      | ND      | ND      | ND      |
| O-dichlorobenzene           | ND      | ND      | ND      | ND      | ND      | ND      |
| P-dichlorobenzene           | ND      | ND      | ND      | ND      | ND      | ND      |
| Methyl Ethyl Ketone         | ND      | ND      | ND      | ND      | ND      | ND      |
| Acetone                     | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromodichloromethane        | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromoform                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride        | ND      | ND      | ND      | ND      | ND      | ND      |
| Dibromochloromethane        | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2-Dichloroethane          | ND      | ND      | ND      | ND      | ND      | ND      |
| Trans 1,2-Dichloroethane    | ND      | ND      | ND      | ND      | ND      | ND      |
| Trans 1,2-Dichloroethylene  | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2-Dichloropropane         | ND      | ND      | ND      | ND      | ND      | ND      |
| Cis 1,3-Dichloropropylene   | ND      | ND      | ND      | ND      | ND      | ND      |
| Trans 1,3-Dichloropropylene | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,2,2-Tetrachloroethane   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,2-Trichloroethane       | ND      | ND      | ND      | ND      | ND      | ND      |
| 2-Chloroethylvinyl Ether    | ND      | ND      | ND      | ND      | ND      | ND      |

# ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33033-89

NAME

(b) (6)

WELL NO.

0273C-1

1073D-1

|                             |    |    |
|-----------------------------|----|----|
| Chloroform                  | ND | ND |
| 1,1-Dichloroethane          | ND | ND |
| 1,1-Dichloroethylene        | ND | ND |
| Trichloroethylene           | ND | ND |
| 1,1,1-Trichloroethane       | ND | ND |
| Tetrachloroethylene         | ND | ND |
| Methylene Chloride          | ND | ND |
| 1-Pentene                   | ND | ND |
| Cyclopentane                | ND | ND |
| Trans 2-Hexene              | ND | ND |
| Benzene                     | ND | ND |
| Toluene                     | ND | ND |
| Ethylene Dibromide          | ND | ND |
| Ethyl Benzene               | ND | ND |
| M-xylene                    | ND | ND |
| O-xylene                    | ND | ND |
| P-xylene                    | ND | ND |
| Cumene                      | ND | ND |
| 1,2,4-Trimethyl Benzene     | ND | ND |
| P-cymene                    | ND | ND |
| Chlorobenzene               | ND | ND |
| M-dichlorobenzene           | ND | ND |
| O-dichlorobenzene           | ND | ND |
| P-dichlorobenzene           | ND | ND |
| Methyl Ethyl Ketone         | ND | ND |
| Acetone                     | ND | ND |
| Bromodichloromethane        | ND | ND |
| Bromoform                   | ND | ND |
| Carbon Tetrachloride        | ND | ND |
| Dibromochloromethane        | ND | ND |
| 1,2-Dichloroethane          | ND | ND |
| Trans 1,2-Dichloroethane    | ND | ND |
| Trans 1,2-Dichloroethylene  | ND | ND |
| 1,2-Dichloropropane         | ND | ND |
| Cis 1,3-Dichloropropylene   | ND | ND |
| Trans 1,3-Dichloropropylene | ND | ND |
| 1,1,2,2-Tetrachloroethane   | ND | ND |
| 1,1,2-trichloroethane       | ND | ND |
| 2-Chloroethylvinyl Ether    | ND | ND |



AREA 05-01-89

PERFORMANCE STANDARDS

DEEP/SHALLOW  
10/27/89

MAXIMUM ALLOWABLE CONTAMINANT CONCENTRATIONS



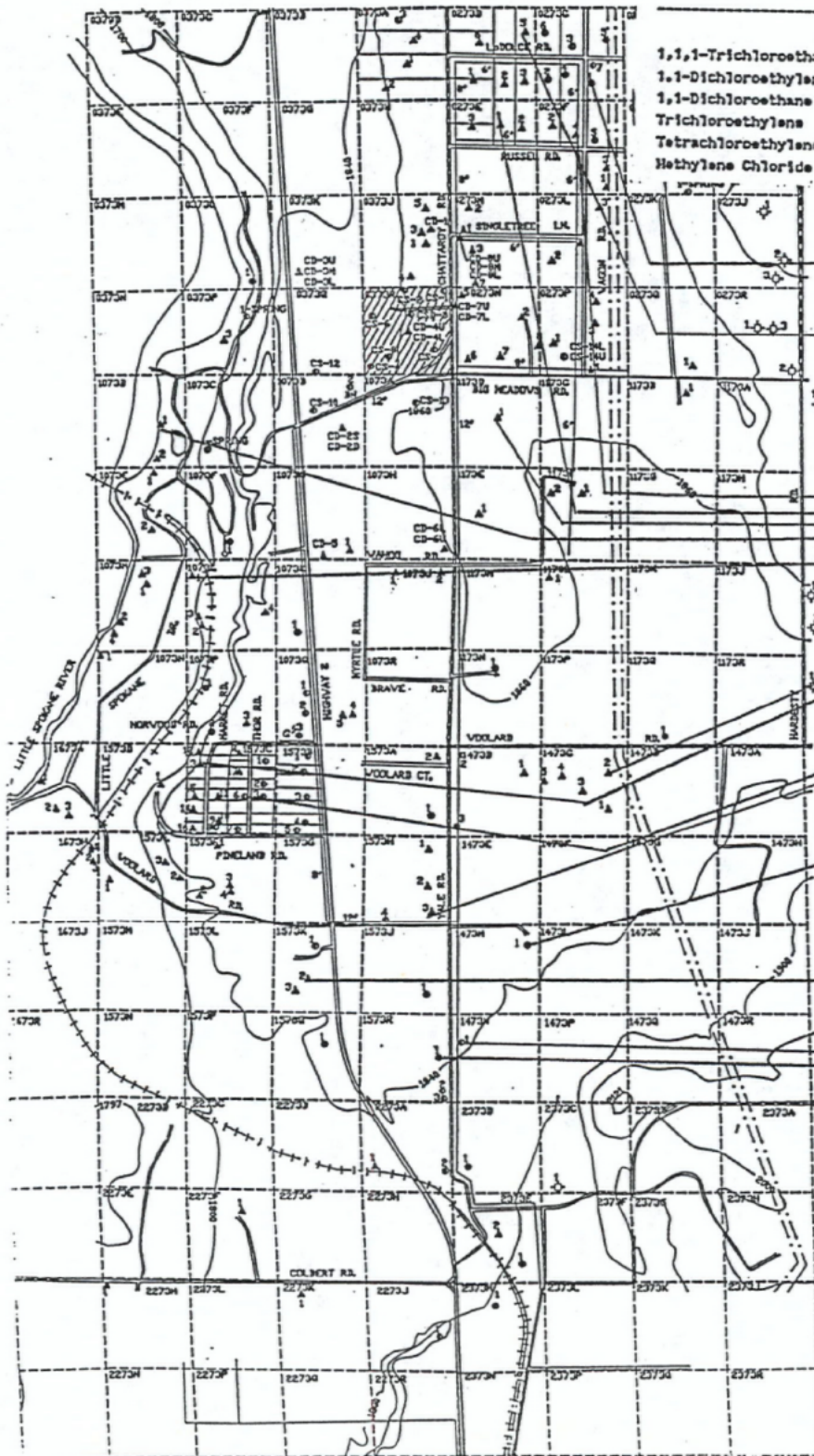
| SYMBOL | LAYER | DESCRIPTION     |
|--------|-------|-----------------|
| □      | 1     | EXISTING ADIANT |
| □      | 2     | EXISTING ADIANT |
| □      | 3     | EXISTING ADIANT |
| □      | 4     | EXISTING ADIANT |
| □      | 5     | EXISTING ADIANT |
| □      | 6     | EXISTING ADIANT |
| □      | 7     | EXISTING ADIANT |
| □      | 8     | EXISTING ADIANT |
| □      | 9     | EXISTING ADIANT |
| □      | 10    | EXISTING ADIANT |
| □      | 11    | EXISTING ADIANT |
| □      | 12    | EXISTING ADIANT |
| □      | 13    | EXISTING ADIANT |
| □      | 14    | EXISTING ADIANT |
| □      | 15    | EXISTING ADIANT |
| □      | 16    | EXISTING ADIANT |
| □      | 17    | EXISTING ADIANT |
| □      | 18    | EXISTING ADIANT |
| □      | 19    | EXISTING ADIANT |
| □      | 20    | EXISTING ADIANT |

Health Protection Levels\*

\* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

NOTE:  
FOR IDENTIFICATION OF VELS  
SEE VELL SYMBOL/LEGEND

| Contaminant                           | Maximum Concentration<br>parts per billion (ug/l) | Basis              |
|---------------------------------------|---|--------------------|
| 1,1,1-Trichloroethane (TCA)           | 200.0   | HCL                |
| 1,1-Dichloroethylene (DCE)            | 7.0   | HCL                |
| 1,1-Dichloroethane (DCA)              | 4050.0  | HAG                |
| Trichloroethylene (TCE)               | 5.0   | HCL                |
| Tetrachloroethylene (PCE or TETRA CL) | 0.7   | 10 - 5 cancer risk |
| Methylene Chloride (HC)               | 2.5   | 10 - 5 cancer risk |



SHALLOW  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)

DEEP  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)

DEEP  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)  
(6)  
(b)

(b)

SHALLOW  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b) (6)

SHALLOW  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)

DEEP  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)

SHALLOW  
OCT 27, 89 #33033-89 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR  
(b)